Date: Sun, 28 Aug 94 04:30:10 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #285
To: Ham-Ant

Ham-Ant Digest Sun, 28 Aug 94 Volume 94 : Issue 285

Today's Topics:
     CT:Re: How do I check my swr meter ?ŸMI>> If you want to ge
  How do I check my swr meter ?
  Longwire AM antenna question

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 26 Aug 94 13:31:00 -0500
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!agate!iat.holonet.net!
cencore!forrest.gehrke@network.ucsd.edu
Subject: CT:Re: How do I check my swr meter ?ŸMI>> If you want to ge
To: ham-ant@ucsd.edu

eally fancy, put a T connector on the meter's
output, MI>> connect up TWO dummy loads with short cables. Transmit, go
through the MI>routine. MI>> You should read 2:1 (rec.radio.folks,
correct me if I'm wrong here).

MI>This works quite well. I built a standard 25 ohm load (2:1 VSWR for 50 Ohm
MI>system) which used a t-piece with two small 30 W loads screwed directly onto

MI>It's amazing just how lousy some of these commercial ham meters are when you
MI>test them with this set-up and a similarly calibrated 1:1 load. I felt a lo
MI>happier opening up the meter and performing adjustments with this sort of ge
MI>to rely on.

Your test of SWR meters is a good start--and it will eliminate some

of the more defective designs. However your test is still an easier
one, being a pure resistance load. Using a Smith chart or a computer
matching program to calculate what the impedance will look like (and
expected SWR), place your 25 ohm load at the end of a length of a few
feet of transmission line so that some significant reactance will be
present. You will find still more SWR meters which can't cut the
mustard. These latter help to promote the mistaken belief that adding
or subtracting a few feet of coax can change SWR readings.

--k2bt

 ≥ SLMR 2.1a ≥ Don't force it; get a larger hammer.

Date: Fri, 26 Aug 1994 17:23:55 GMT
From: rit!sunsrvr6!jdc@cs.rochester.edu
Subject: How do I check my swr meter ?
To: ham-ant@ucsd.edu

In article <greed.14.0005F533@sl0011.srl.ford.com>,
Gary A.Reed <greed@sl0011.srl.ford.com> wrote:
>How does one go about checking a swr meter to see if it is a "good" meter or
>junk? If this is not easy to do, what is a good meter to buy (if you don't
>have a lot of money buy this..... but if you do, buy this......) ?
>Thanks Gary WB8OFU

Take a forward and reverse power reading, then switch the SWR meter's
connections. The previous forward reading should equal the new reverse
reading, and vice versa.

73...Jim N2VNO

Date: Fri, 26 Aug 1994 17:35:57 GMT
From: rit!sunsrvr6!jdc@cs.rochester.edu
Subject: Longwire AM antenna question
To: ham-ant@ucsd.edu

In article <19940823.175735.705@almaden.ibm.com>,
Robert Mech <mech@VNET.IBM.COM> wrote:
>I know this doesn't fall into the realm of amateur radio, since the
>question deals with the commercial AM band, but I couldn't think of a
>better place.
>
>Anyway, I want to improve reception of a weak AM station about 60 miles

>away on 580 kHz. I have the room to put in an external longwire antenna
>so I am leaning in that direction.

A good antenna for something like this is a tuned loop. The big
problem with MW reception is the large number of stations on each
frequency, and the amount of man-made noise. Tuned loops help on
both counts.

Tuned loops are easy to build. There might be something in one of
the rec.radio.shortwave faq's. A simple one is 11-13 turns of copper
wire on a 2-foot square form, tuned with a 365 pf variable capacitor
from an old AM radio. Set your transistor radio next to it so
it's ferrite antenna windings are parallel to the loop. Tune antenna
for strongest signal, then turn the whole mess to eliminate the most
interference.

There is also a MW DX'ers association, the National Radio Club. They
have a bunch of inexpensive publications on tuned loop construction
projects, etc.

73...Jim N2VNO
>
>Is the best longwire a single horizontal wire (vs dipole, etc.)? I may
>have room for 1/4 wavelength at 580 Khz (400 some feet), certainly room
>for 1/8 wavelength. I assume the longer the better, more for the gain
>rather than the larger fraction of a wavelength? And will getting the
>length to an exact fraction of a wavelength make a huge difference in
>pulling in a particular AM station?
>
>Is the downlead from the antenna to the radio critical for AM,
>impedance-wise? Or can one use any plain old coax (I have a ton of
>RG-6)? The distance from antenna to radio might be close to 100 feet,
>and the downlead will be underground, in conduit at least part of the
>way. I shouldn't have big problems driving an eight foot grounding rod
>at the downlead end of the antenna to provide the ground connection.
>
>The toughest part could be trying to locate 500+ feet of bare stranded 14
>guage for the longwire around here. It's almost 100 miles to a decent
>electronics place.
>
>(Football is starting soon, I'm within range of the Packer Radio Network
> for the first time in ten years, and I need another way to get the
> Packers since all football will be scrambled on satellite this season,
> phooey!)
>
>Robert
>mech@vnet.ibm.com

End of Ham-Ant Digest V94 #285
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